WHAT IS CLAIMED IS:

[0021] 1. A combustor for a gas turbine, comprising:

[0022] a combustor body with an inner liner;

[0023] a casing enclosing said body and defining a passageway therebetween for carrying compressor discharge air;

[0024] a combustion chamber within said body for combustion of fuel and air;

[0025] a first manifold for extracting a predetermined amount of compressor discharge air from said passageway;

[0026] a second manifold for receiving the extracted air and supplying the extracted air into said body at a location bypassing said combustion chamber; and

[0027] a plurality of injection tubes in communication with said second manifold for injecting the extracted air into said body to quench combustion, said injection tubes and said second manifold being disposed in a substantially common axial plane.

[0028] 2. The combustor of claim 1, further comprising:

[0029] an array of openings disposed in said casing to permit the compressor discharge air to flow through said openings into said first manifold; and

[0030] a conduit for supplying the extracted air from said first manifold to said second manifold.

[0031] 3. The combustor of claim 2, wherein said second manifold includes an access flange for each injection tube.

[0032] 4. The combustor of claim 3, wherein the injection tubes are equally spaced from one another about said second manifold.

[0033] 5. The combustor of claim 4, wherein first and second ends of said conduit terminate in said first and second manifolds, respectively.

[0034] 6. The combustor of claim 5, wherein said conduit includes a control valve to regulate air flowing from said first manifold to said second manifold.

[0035] 7. The combustor of claim 6, wherein said first and second manifolds are disposed about an outer surface of said casing.

[0036] 8. A combustor for a gas turbine, comprising:

[0037] a combustor body;

[0038] a casing enclosing said body and defining a passageway therebetween for carrying compressor discharge air;

[0039] a catalytic reactor disposed in said body for controlling pollutants released during combustion;

[0040] a first manifold for extracting a predetermined amount of compressor discharge air from said passageway;

[0041] a second manifold for receiving the extracted air and supplying the extracted air to said body at a location bypassing said catalytic reactor; and

[0042] a plurality of injection tubes in communication with said second manifold for injecting the extracted air into said body, said injection tubes and said second manifold being disposed in a substantially common axial plane.

[0043] 9. The combustor of claim 8, wherein said casing includes an array of openings adjacent to said first manifold to enable the compressor discharge air to flow through said openings into said first manifold; and

[0044] a conduit for supplying the extracted air from said first manifold to said second manifold.

[0045] 10. The combustor of claim 9, wherein said second manifold includes an access flange for each of said injection tubes.

[0046] 11. The combustor of claim 10, wherein the injection tubes are equally spaced from one another about said second manifold.

[0047] 12. The combustor of claim 11, wherein first and second ends of said conduit terminate in said first and second manifolds, respectively.

[0048] 13. The combustor of claim 12, wherein said first and second manifolds are disposed about an outer surface of said casing.

[0049] 14. A gas turbine comprising:

[0050] a compressor section for pressurizing air;

[0051] a combustor for receiving the pressurized air; and

[0052] a turbine section for receiving hot gases of combustion from the combustor, said combustor including a combustor body with an inner liner, a casing enclosing said body and defining a passageway therebetween for carrying compressor discharge air, a combustion chamber within said body for combustion of fuel and air, a first manifold for extracting a predetermined amount of compressor discharge air from said passageway, a second manifold for receiving the extracted air and supplying the extracted air into said body at a location bypassing said combustion chamber, and a plurality of injection tubes in communication with said second manifold for injecting the extracted air to said

body to quench combustion, said injection tubes and said second manifold being disposed in a substantially common axial plane.

[0053] 15. A gas turbine according to claim 14, wherein said casing further includes an array of openings adjacent to said first manifold to enable the compressor discharge air to flow through said openings into said first manifold, and a conduit for supplying the extracted air from said first manifold to said second manifold.

[0054] 16. The gas turbine of claim 15, wherein said second manifold includes an access flange for each injection tube.

[0055] 17. The gas turbine of claim 16, wherein the injection tubes are equally spaced from one another about said second manifold.

[0056] 18. The gas turbine of claim 17, wherein first and second ends of said conduit terminate in said first and second manifolds, respectively.

[0057] 19. In a combustor comprising a body with an inner liner and a casing enclosing said body defining a passageway therebetween, a catalytic reactor disposed within said body, first and second manifolds about said casing, and a conduit for connecting said first and second manifolds, a method for quenching combustion comprising the steps of:

[0058] extracting a predetermined amount of compressor discharge air, before the air flows into said reactor, from said passageway into said first manifold;

[0059] supplying said extracted air from said first manifold to said second manifold via said conduit;

[0060] injecting the extracted air received by said second manifold into said body at a location along the body bypassing said reactor using an array of injection tubes; and

[0061] disposing said injection tubes and said second manifold in a substantially common axial plane.

[0062] 20. In a gas turbine comprising a compressor, a combustor, and a turbine, said combustor including a body with an inner liner, a casing enclosing said body defining a passageway therebetween for carrying compressor discharge air, a catalytic reactor disposed within said body, first and second manifolds disposed about said casing, and a conduit for connecting said first and second manifolds, a method for quenching combustion comprising the steps of:

[0063] extracting a predetermined amount of compressor discharge air, before the air flows into said reactor, from said passageway into said first manifold;

[0064] supplying said extracted air from said first manifold to said second manifold via said conduit; and

[0065] injecting the extracted air received by said second manifold into said body at a location along the body bypassing said reactor using an array of injection tubes; and

[0066] disposing said injection tubes and said second manifold in a substantially common axial plane.